IN THE CLAIMS:

1. (Currently Amended) A data reproduction apparatus that reproduces data included in transport streams, comprising:

a storage medium storing a first transport stream that includes location information at a first location thereof, the location information identifying a second location that is on a time axis and that differs from the first location, the second location being included in the first transport stream or in a second transport stream; and

reproduction means for

(a) reproducing video data and/or audio data included in a reference target in the first transport stream, while searching for the location information by shifting the reference target ~~shifting the reference target along a time axis of the first transport stream,~~ and

(b) switching the reference target to the second location identified by the location information, when the reference target in the first transport stream includes the location information.

2. (Original) The data reproduction apparatus of Claim 1,

wherein the storage medium stores the second transport stream that includes the second location,

the location information further includes transport stream information that identifies the second transport stream that includes the second location, and

the reproduction means switches the reference target to the second location in the second transport stream identified by the transport stream information.

3. (Original) The data reproduction apparatus of Claim 2,

wherein each of the first and second transport streams includes data for a plurality of programs with being multiplexed,

the location information further includes program ID information that identifies one of the plurality of programs, and

the reproduction means sets, as the reference target, video data and/or audio data that belongs to the program identified by the program ID information and that is present at and following the second location, after switching the reference target.

4. (Original) The data reproduction apparatus of Claim 3,

wherein each of the first and second transport streams is composed of a plurality of packets and includes a program map table for identifying data that constitutes each program included therein, and a program association table for identifying a packet that carries the program map table, and

the location information is included in the program map table.

5. (Original) The data reproduction apparatus of Claim 4,

wherein the program map table that includes the location information identifies data for the program identified by the program ID information.

6. (Original) The data reproduction apparatus of Claim 5, further comprising

location information insertion means for

(a) extracting a program map table for identifying the program identified by the program ID information from the second transport stream,

(b) adding the location information to the extracted program map table, to generate an insertion program map table, and

(c) inserting the generated insertion program map table into a transport stream to generate the first transport stream,

wherein the program map table including the location information included in the first transport stream is the insertion program map table that has been inserted by the location information insertion means.

7. (Original) The data reproduction apparatus of Claim 6,

wherein when inserting the insertion program map table including the location information, the location information insertion means

(a) deletes a program map table of a program to be referred to before switching the reference target,

(b) changes a value of a packet identifier of the insertion program map table to a value of a packet identifier of the deleted program map table, and

(c) changes a program number shown in the insertion program map table to a program number shown in the deleted program map table.

8. (Currently Amended) The data reproduction apparatus of Claim 6,

wherein the insertion program map [[tale]] table includes a program number of the program identified by the program ID information and a packet identifier for identifying a program map table corresponding to the program identified by the program ID information, and

the location information insertion means further adds the program number and the packet identifier to a program association table present in a vicinity preceding a location at which the insertion program map table has been inserted.

9. (Original) The data reproduction apparatus of Claim 8,

wherein the location information insertion means,

(a) before adding the program number and the packet identifier to the program association table,

replaces the program number with a unique number, if the program number is already present in the program association table, and

replaces the value of the packet identifier with a unique value, if the value of the packet identifier is already used in the transport stream into which the insertion program map table is yet to be inserted, and

(b) before inserting the insertion program map table,

replaces the program number included in the insertion program map table with the unique number, if the program number added to the program association table has been replaced with the unique number, and

replaces the value of the packet identifier included in the insertion program map table with the unique value, if the value of the packet identifier added to the program association table has been replaced with the unique value.

10. (Original) The data reproduction apparatus of Claim 3,

wherein each of the first and second transport streams is composed of a plurality of packets and includes a program map table for identifying data that constitutes each program included therein, and a program association table for identifying a packet that carries the program map table, and

the location information is included in the program association table.

11. (Original) The data reproduction apparatus of Claim 2,

wherein the transport stream information is a name of a file that stores the second transport stream in the storage medium.

12. (Original) The data reproduction apparatus of Claim 3,

wherein each of the first and second transport streams includes a packet that carries a program map table for identifying data that constitutes each program included therein, and a program association table for identifying the packet that carries the program map table, and

the program ID information is a program number shown in the program association table and in the program map table.

13. (Original) The data reproduction apparatus of Claim 1, further comprising

location information insertion means for inserting the location information into a transport stream to generate the first transport stream,

wherein the location information included in the first transport stream has been inserted by the location information insertion means.

14. (Original) The data reproduction apparatus of Claim 13, further comprising

insertion location obtaining means for obtaining the first location and notifying the location information insertion means of the obtained first location.

15. (Original) The data reproduction apparatus of Claim 13, further comprising:

display means for displaying on a screen a plurality of locations as candidates for the first location; and

reception means for receiving a specification of one of the plurality of locations,

wherein the location information insertion means inserts the location information into the transport stream at the one of the locations specified as the first location.

16. (Original) The data reproduction apparatus of Claim 15,

wherein the location information further includes mode information indicating one of a manual mode and an automatic mode, the manual mode for switching the reproduction target by a user judgment, the automatic mode for switching the reproduction target without the user judgment, and

the reproduction means switches the reproduction target based on the mode information.

17. (Original) The data reproduction apparatus of Claim 16,

wherein the reception means further receives a specification of one of the manual mode and the automatic mode, and

the location information insertion means inserts the location information provided with the mode information indicating the specified mode.

18. (Original) The data reproduction apparatus of Claim 17,

wherein the reception means further receives, from the user, a display instruction to display a specification state of the mode, and

the display means displays information associating the location information with the mode when receiving the display instruction

19. (Original) The data reproduction apparatus of Claim 13, further comprising:

reception means for receiving an instruction from a user; and

restoration means for obtaining, when receiving a restoration instruction to restore the transport stream into which the location information is yet to be inserted, the location information inserted by the location information insertion means from the first transport stream, and restoring the transport stream into which the location information is yet to be inserted.

20. (Original) The data reproduction apparatus of Claim 1, further comprising

reception means for receiving an instruction from a user,

wherein the reproduction means switches the reproduction target only when an instruction to switch the reproduction target from the user is received by the reception means.

21. (Original) The data reproduction apparatus of Claim 20, further comprising

display means for displaying information for having the user input an instruction indicating whether to switch the reproduction target or not, when the reference target includes the location information.

22. (Original) The data reproduction apparatus of Claim 21, further comprising

location information insertion means for inserting the location information into a transport stream to generate the first transport stream,

wherein the location information included in the first transport stream has been inserted by the location information insertion means.

23. (Original) The data reproduction apparatus of Claim 1, further comprising:

second location obtaining means for obtaining the second location on the time axis; and

location information generation means for generating the location information based on the second location obtained by the second location obtaining means,

wherein the location information included in the first transport stream has been generated by the location information generation means.

24. (Original) The data reproduction apparatus of Claim 1,

wherein each of the first and second transport streams is composed of a plurality of packets, and

the location information is a number of packets present between a first packet and a packet at the second location inclusive, in the transport stream.

25. (Currently Amended) A data reproduction apparatus that reproduces data included in data streams, comprising:

a storage medium storing a first data stream that includes location information at a first location thereof, the location information identifying a second location that is on a time axis and that differs from the first location, the second location being included in the first data stream or in a second data stream; and

reproduction means for

(a) reproducing video data and/or audio data included in a reference target in the first data stream, while searching for the location information by shifting the reference target ~~shifting the reference target along a time axis of the first data stream,~~ and

(c) switching the reference target to the second location identified by the location information, when the reference target in the first data stream includes the location information.

26. (Currently Amended) A data reproduction method for use in a data reproduction apparatus that reproduces data included in transport streams and that includes a storage medium storing a first transport stream that includes location information at a first location thereof, the location information identifying a second location that is on a time axis and that differs from the first location, the second location being included in the first transport stream or in a second transport stream, the data reproduction method including

a reproduction step for

(a) reproducing video data and/or audio data included in a reference target in the first transport stream, while searching for the location information by shifting the reference target ~~shifting the reference target along a time axis of the first transport stream,~~ and

(b) switching the reference target to the second location identified by the location information, when the reference target in the first transport stream includes the location information.

27. (Currently Amended) A ~~computer-readable recording medium on which a program data for making a data reproduction apparatus reproduce data is recorded,~~ computer program on a computer readable medium for making a data reproduction apparatus reproduce data, the data reproduction apparatus reproducing data included in transport streams and including a storage medium storing a first transport stream that includes location information at a first location thereof, the location information identifying a second location that is on a time axis and that differs from the first location, the second location being included in the first transport stream or in a second transport stream, the program including

a reproduction step for

(a) reproducing video data and/or audio data included in a reference target in the first transport stream, while searching for the location information by shifting the reference target ~~shifting the reference target along a time axis of the first transport stream~~, and

(b) switching the reference target to the second location identified by the location information, when the reference target in the first transport stream includes the location information.

28. (Original) A data editing apparatus that edits transport streams, comprising:

a storage medium; and

editing means for

(a) editing a transport stream by inserting location information into the transport stream at a first location thereof, the location information identifying a second location that is on a time axis and that differs from the first location, the second location being included in the transport stream into which the location information has been inserted, or in a different transport stream, and

(b) storing the edited transport stream into the storage medium.